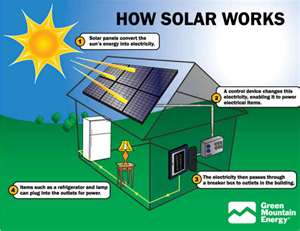


Solar Power

Cassie Quinn Sofia Sannazzaro

Important Charts and Diagrams



Advantages

* **The power of the sun is absolutely free**
* **Solar energy produces no pollution**
* **Most solar power energy lasts 30 to 40 years**
* **Most systems carry a warranty of 20 to 30 years**
* **Solar systems are designed for particular needs**

Disadvantages

* **Costs- Solar power generators can cost from 15,000 to $35,000. The infrastructure for generating solar energy comes at a high price. The government offers many tax incentives and rebates for those who choose solar energy as a power and energy source for their household.**
* **Location- Solar panels and energy-generating equipment work best in sunny climates. Those who live in places with little sunlight or places with short summers and long winters will not get the benefit of solar energy as an alternative form of energy.**
* **Consistency- Charging a solar battery and keeping it as a backup can overcome the problem of insufficient sunlight. However, the battery too needs the sun to charge.**
* **Atmospheric Conditions- Atmospheric conditions like clouds or atmospheric pollution will cause the apparatus use to** **generate solar energy to function at reduced efficiency.**

*Is the future ready for us?*



Cassie and sofia solar

Find us in Florida

The “Sunshine State”

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**www.franklinschool.org**

For more information, go to…

* <http://www.powersourcesolar.com/5151/index.html>

* <http://www.solar-power-for-homes.info/tag/energy-tax-credits/>
* <http://www.going-green-challenge.com/solar-energy-history.html>
* <http://www.arosaenergy.com/residential.html>
* <http://www.ehow.com/list_7218971_disadvantages-solar-energy_.html>

How It Works

Solar power electricity

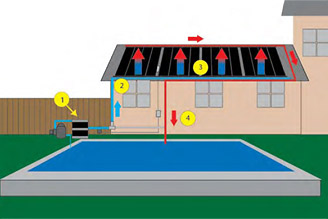
First, the solar rays hit a solar collector. Next, the rays heat the water. After that, the water turns to steam, the steam then turns the turbine, or an otherwise known as an engine. Last, the turbine turns the generator which produces electricity.

Information that is useful to the buyer

Turbine: engine

Infrastructure: foundation

Apparatus: equipment with a purpose



Other Uses

* Solar Thermal System- Heating water for bathing, laundry and cleaning can account for up to 70% of an average household’s gas bill. Installing a solar hot water system allows homeowners to significantly reduce their total energy consumption, saving money and reducing pollution of the environment.
* Pool Heating System- Is the cost of heating your pool cutting short your swim season? Now you can enjoy all the benefits of owning a pool late into each year, ignoring the calendar and cooler weather. While operating a standard gas or electric heater may cost hundreds of dollars per month, a solar heater warms your pool free, with renewable energy, day after day!

History

* In the 7th century B.C. magnifying glasses used the sun's rays to create fire
* In 1873 British electrician Willoughby Smith discovered the photoconductivity of selenium.
* 1908   
  William J. Bailley invents a solar collector. Made with copper coils and an insulated box, the solar collector is similar to current designs.
* 1954   
  Calvin Fuller, Gerald Pearson and Daryl Chaplin of Bell Laboratories create the first silicon solar cell able to generate enough power to run common appliances.
* 1993   
  Pacific Gas and Electric install the first photovoltaic grid system in Kerman, California.
* 2000   
  Production begins at First Solar in Perrysburg, OH, the world's largest photovoltaic manufacturing plant.
* 2002   
  In the Solar Decathlon competition sponsored by the Department of Energy, students at the University of Colorado built an energy efficient home that utilized solar power.
* Today   
  Use of solar energy is increasing at a rapid rate of an estimated 30% per year. Demand for solar energy products is currently greater than supply. Thanks to increased competition from manufacturers and DIY solar energy kits, the cost of solar panels are falling. Solar power is being used to light and heat homes, warm water, and cook food.

For more information

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